Level 15, 459 Collins Street, Melbourne, 3000

Ms Audrey Zibelman
CEO, Australian Energy Market Operator
By email: mlf_feedback@aemo.com.au

25 November 2020

Dear Ms Zibelman,

RESPONSE TO DRAFT REPORT AND DETERMINATION – FORWARD-LOOKING TRANSMISSION LOSS FACTORS

On 6 November 2020, the Australian Energy Market Operator (AEMO) published its Draft Report and Determination (the Draft Report) on Forward-looking Transmission Loss Factors. The Clean Energy Investor Group (CEIG) welcomes the opportunity to provide feedback on the Draft Report.

CEIG represents domestic and global renewable energy developers and investors, with around 5GW of installed renewable energy capacity across 49 power stations and a combined portfolio value of over $9 billion. CEIG strongly advocates for an efficient transition to a clean energy system from the perspective of the stakeholders who will provide the low cost capital needed to achieve it.

CEIG outlines below its response to specific issues in AEMO's Draft Report.

Sharing AEMO's Marginal Loss Factor (MLF) model

In its response to AEMO's August 2020 Issues Paper on the Forward-looking Transmission Loss Factor (FLLF) methodology, CEIG noted that it would support AEMO making its model shareable with market participants without commercially sensitive data.

CEIG notes AEMO's assessment that it is not possible at this stage "to separate the model from commercially sensitive data" but that it will investigate what data could be shared in future.

Reference data

Is there a perceived sustained material benefit in revising the definition of reference year to incorporate more recent data?

AEMO's conclusion:

No changes to the FLLF methodology will be made in respect of reference load data for the MLF calculation.

CEIG is supportive of AEMO's decision not to make any changes to the FLLF methodology with regards to Reference data at this stage.

CEIG notes AEMO's response to CEIG around the difficulties in testing the sensitivity of the MLF model to the reference year and AEMO's assessment that "the likely impact of incorporating more recent load data would be of relatively low value".

New generation profiles

Do stakeholders see merit in the approach of AEMO producing generation profiles internally and the inclusion of commissioning activities within the profiles?
Can stakeholders identify any additional considerations/alternatives?

AEMO's conclusion:
AEMO will determine new generation profiles in the FLLF methodology for wind and solar consistent with the Market Modelling Methodologies document. The methodology will also be amended to clarify provisions for proponents to review the profiles and consult on alternative proposals.

CEIG is supportive of AEMO's conclusion.

CEIG welcomes the opportunity for proponents to review generation profiles for their assets and to be consulted on alternative proposals when a proponent believes that it would provide a more accurate forecast generation profile.

Although CEIG understands the current limitations in AEMO sharing data from its MLF model, whenever it becomes technically feasible, CEIG remains interested in a broader disclosure of generation assumptions applied in the MLF calculation (that is, assumptions being disclosed for all generation projects, not just a generator's own projects) to enable MLF forecasters to reconcile and calibrate their models.

Minimum stable operation levels of thermal plant

Can stakeholders identify any additional sources for identifying the stable minimum generation levels, and do stakeholders have any considerations/ alternative suggestion as to how stable minimum generation levels may be managed?

AEMO's conclusion:
AEMO will review supply and demand balancing outcomes for potential material impacts from minimum stable operation levels for large thermal units. Where a potential material impact is identified, AEMO will adjust and perform reruns as necessary.
Where there is a potential material impact identified, AEMO will estimate minimum stable operation levels based on data from the ESOO, historical data, and information provided in consultation with generators.

CEIG is supportive of AEMO's approach.

Minimal Extrapolation Theory

Do stakeholders see merit in retaining the existing minimal extrapolation theory and if so, should it be expanded? What alternatives to minimal extrapolation theory do stakeholders consider suitable?

AEMO's conclusion:

No changes to the FLLF methodology will be made in respect of minimal extrapolation theory at this stage. AEMO will reconsider this issue when assessing future alternatives or upgrades to the MLF calculation engine.

CEIG notes that, in section 5.5.1 of the Draft FLLF Methodology v8.0, to maintain the supply-demand balance during periods of excess generation, generation from non-energy limited generating units is reduced, while generation from energy limited generating units (including wind and solar) is not reduced unless other generation reduces to zero or below minimum stable generation limits. However, recent years have seen increasing levels of economic curtailment of wind and solar, much of which occurs during peak solar hours which are likely to be periods of excess generation.

The proposed methodology is therefore likely to over-predict future wind and solar profiles (which will result in an overly low MLF for wind and solar generators) and under-predict thermal generation (which will give thermal generators an overly high MLF).

To remove this bias against wind and solar generation, CEIG proposes that generation from wind and solar is also reduced in the same manner as that from non-energy limited generating units (thermal).

CEIG proposes to amend section 5.5.1 of the Draft FLLF Methodology v8.0 to read:

> There will be an excess of generation for each sample interval where the forecast connection point loads have grown by less than the initial forecast of the output of the new generating units.
>
> For these sample intervals, AEMO reduces the net generation by scaling the output of all ~~the non-energy limited~~ generating units in proportion to their Reference Year output.
>
> For new ~~non-energy limited~~ generating units, AEMO scales the initial estimate of the output in the same manner as the Reference Year output of the existing generating units.
>
> AEMO will review outcomes where excess generation is observed, large thermal generating unit reductions will be reviewed against minimum stable generation limits and adjustments made where deemed necessary in consultation with generators.

Transparency of MLFs

Did stakeholders find value in the publication of preliminary MLFs for the 2020-21 financial year (published in November 2020)?

Do stakeholders consider the proposed timing for reporting is appropriate?

AEMO's conclusion:
AEMO will include a provision in the FLLF methodology for a preliminary MLF report to be published each November and will continue working towards the development of a scenario sensitivity analysis. A scenario sensitivity report would consider any factors that are likely to materially impact the target year.

CEIG is supportive of AEMO's approach.

CEIG understands and sympathises with AEMO's concerns around the uncertainty of MLF forecasts beyond a target year and the significant costs in attempting to make such forecasts. The uncertainty of MLF forecasting on an investment timescale is something our members grapple with for existing projects, and importantly is a significant risk which adds cost to – and sometimes blocks – new investments in the NEM. CEIG understands AEMO's position within the existing regulatory framework and looks forward to future reforms which address the MLF volatility and forecasting cost that AEMO has identified.

Energy generation forecast study
Do stakeholders see merit in including wind and solar in the Energy Generation Forecast Study?
What steps could be taken to improve stakeholder engagement in relation to the Energy Generation Forecast Study publication?

AEMO's conclusion:
The proposed changes to the energy generation forecast report will be implemented.

CEIG is supportive of AEMO's approach.

Thank you for the opportunity to provide feedback on AEMO's second round of proposed amendments to the FLLF methodology. CEIG looks forward to further engagement on this issue. Please contact us at secretariat@ceig.org.au if you would like to discuss any elements of this submission.

Yours sincerely,

Simon Corbell
Chairperson
Clean Energy Investor Group